Amendments to Claims

Claim 1 (Original). A method for the production of a monoterpene comprising:

a) providing a transformed C1 metabolizing host cell comprising:

(i) suitable levels of geranyl pyrophosphate; and

(ii) at least one isolated nucleic acid molecule encoding a cyclic terpene synthase under the control of suitable regulatory sequences;

(b) contacting the host cell of step (a) under suitable growth conditions with an effective amount of a C1 carbon substrate whereby a monoterpene compound is produced.

Claim 2 (Original). A method according to Claim 1 wherein the C1 carbon substrate is selected from the group consisting of methane, methanol, formaldehyde, formic acid, methylated amines, methylated thiols, and carbon dioxide.

Claim 3 (Original). A method according to Claim 1 wherein the C1 metabolizing host cell is a methylotroph selected from the group consisting of *Methylomonas, Methylobacter, Mehtylococcus, Methylosinus, Methylocyctis, Methylomicrobium, Methanomonas, Methylophilus, Methylobacillus, Methylobacterium, Hyphomicrobium, Xanthobacter, Bacillus, Paracoccus, Nocardia, Arthrobacter, Rhodopseudomonas, Pseudomonas, Candida, Hansenula, Pichia, Torulopsis,* and *Rhodotorula.*

Claim 4 (Original). A method according to Claim 1 wherein C1 metabolizing host is a methanotroph.

Claims 5-6 (Canceled).

Claim 7 (Currently Amended). A method according to Claim 46 wherein the ~~obligate~~ methanotroph is a high growth methanotrophic strain which comprises a functional Embden-Meyerof carbon pathway, said pathway comprising a gene encoding a pyrophosphate dependent phosphofructokinase enzyme.

Claim 8 (Canceled).

Claim 9 (Original). A method according to Claim 7 wherein the high growth methanotrophic bacterial strain optionally contains a functional Entner-Douderoff carbon pathway.

Claim 10 (Canceled)

Claim 11 (Currently Amended). A method according to Claim ~~10~~ 7 wherein the high growth methanotrophic bacterial strain is methylomonas 16a having the ATCC designation ATCC PTA 2402.

Claim 12 (Original). A method according to Claim 1 wherein the cyclic terpene synthase is selected from the group consisting of limonene synthase, pinene synthase, bornyl synthase, phellandrene synthase, cineole synthase, and sabinene synthase.

Claim 13 (Original). A method according to Claim 1 wherein the monoterpene is selected from the group consisting of limonene, pinene, bornyl diphosphate, β-phellandrene, 1,8-cineole, and sabinene.

Claim 14 (Original). A method according to Claim 1 wherein the cyclic terpene synthase is limonene synthase, the monoterpene is limonene and the recombinant host is *Methylomonas*.

Claim 15 (Original). A method according to Claim 14 wherein the limonene synthase has the amino sequence as set forth in SEQ ID NO:6.

Claim 16-21 (Canceled).

Claim 22 (Original). A method according to Claim 1 wherein the suitable levels of geranyl pyrophosphate are provided by the expression heterologus upper pathway isoprenoid pathway genes.

Claim 23 (Original). A method according to Claim 22 wherein said upper pathway isoprenoiod genes encod enzymes selected from the group consisting of D-1-deoxyxylulose-5-phosphate synthase (DXS); D-1-deoxyxylulose-5-phosphate reductoisomerase (DXR); 2C-methyl-d-erythritol cytidylyltransferase (IspD), 4-diphosphocytidyl-2-C-methylerythritol kinase (IspE), 2C-methyl-d-erythritol 2,4-cyclodiphosphate synthase (IspF), CTP synthase (IspA) and Geranyltranstransferase (PyrG).